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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/654,417	09/01/2000	Alanna Marie Quail	60.426-096	7085

24500 7590 11/13/2003

SIEMENS CORPORATION
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EXAMINER	
TO, TUAN C	

ART UNIT	PAPER NUMBER
3663	

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/654,417	QUAIL ET AL.	
	Examiner	Art Unit	
	Tuan C To	3663	

-- The MAILING DATE of this communication appears on the cover sheet with th correspondence address--

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 20-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,15-18 and 20-41* is/are rejected.

7)☒ Claim(s) *13 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12, 15-18, 20-26, and 28-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steffens, Jr. et al. (U.S. 5626359) in view of Breed et al. (US 6116639A).

Claims 1, 15, and 18: Steffens, Jr. et al. has been cited as disclosing an apparatus and method for controlling the restraint device similarity to the occupant restraint system as claimed. Steffens, Jr. et al. teach that the occupant weight sensor 70 (see figure 2 of Steffens, Jr. et al.) located in the bottom cushion 38 of the seat 32 and said sensor electrically connected to the controller 24. The weight sensor determines whether the occupant or object is on the seat by measuring the weight of occupant or object on the seat. Next, Steffens, Jr. et al. disclose the control unit 24 for receiving input signals from a plurality of sensors such as occupant sensor, collision sensors and said control unit generates the output signal based on said input to deploy

the occupant restraint system. Steffens, Jr. et al. do not disclose that the modifier sensor such as the weight sensor 70 that generates a modifier signal representative of either a position condition to enable an occupant restraint system having at least an airbag assembly and a seat belt assembly or a negative condition to disable the occupant restraint system, said modifier signal disabling at least one of an airbag control or a seat belt control as soon as at least one negative condition is identified. The secondary reference to Breed et al. is directed to system and method for controlling a system in the vehicle based on the presence of the occupant on the seat. As represented in column 5, lines 13-17, one of the advantages of the Breed et al.'s system and method is to recognize the presence of a passenger or a passenger on a particular seat of the motor vehicle and to use this information to affect the operation of another vehicle system such as airbag system.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to improve the system and method of Steffens, Jr. et al.'s by substituting the teaching of Breed et al. as discussed above in order to properly deploy airbag system according the level of impact and the presence of the occupant on the seat.

Claims 2-5, 8-12, 16, 17, 20-26, and 28-35: As discussed above, the weight sensor 70 of Steffens detects the presence of occupant on the seat by measuring the occupant's weight. Breed et al. disclose that the airbag system is operated based on the occupant condition of the occupants on a particular seat, for example, a child seat.

Claim 6: Steffens, Jr. et al. disclose said system and a method for controlling an occupant restraint system, wherein said at least one modifier sensor includes a seat belt usage sensor for determining whether a seat belt harness is being utilized by the occupant and wherein said modifier signal is generated as a positive modifier signal when said seat belt harness is in an engaged position and is generated as negative modifier signal when said seat belt harness is in a disengaged position (Column 2, lines 51-67; Column 3, lines 1-25; Fig. 2).

Claim 7: Steffens, Jr. et al. disclose the following: "The belt payout sensor 64 is operatively connected to a seat belt retractor 66 and is electrically connected to the controller 24. The payout sensor 64 provides an electrical signal indicative of the amount of seat belt webbing 50 that has been pulled from the retractor 66. The amount of webbing pulled from the retractor 66 is indicative of the occupant's girth". Thus, the deployment of the seat belt retractor is controlled, and it properly deploys depend on whether the positive modifier signal is received.

Claims 36-40: Neither Steffens, Jr. et al. nor Stanley mentions about the processing unit discussed in claim 1 includes a network capable of learning various vehicle characteristics unique to vehicle type and size and adapting output signal signal to account for different vehicle type, and said network capable of learning passenger compartment sizes. However, such features are inherent existed. The system and a method for controlling an occupant restraint system as disclosed by Steffens, Jr. et al. and Stanley are certainly applied for various vehicle types and sizes, or compartment vehicle sizes.

Claims 27, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steffens, Jr. et al. (U.S. 5626359), Breed et al. (US 6116639A), and further in view of Le (US 5809234A).

Claims 27 and 41: Steffens, Jr. et al. and Breed et al. disclose the occupant restraint system and method with all features in the claim as already discussed in the previous paragraphs except for step of utilizing a fuzzy logic analysis as recited in claims 27. Le reference is provided as it discloses basically the fuzzy process, wherein the fuzzy logic includes the step of storing membership function, storing a plurality of logic rules, and evaluating the rules and input signals to form the control decision and to translate said control decision in the output signal. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Steffens, Jr. et al.'s, Breed et al, and Le in order to control the restraint apparatus such as airbag in such a way that the fuzzy logic control whether and how the airbag will be deployed.

Allowable Subject Matter

During the examining the application, the examiner has found none of the reference teaches or fairly suggests the limitation of claim 13, thus, claims 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

This office action is a communication to respond the applicant's request for reconsideration. Claims 13 and 14 are in a condition for allowance. Claims 1-12, 15-18, 20-41 are still rejected under 35 U.S.C 103(a).

Applicant's arguments, see the applicant's request for reconsideration, filed on 08/06/2003, with respect to the rejection(s) of claim(s) 1-12, 15-18, 20-41 under 35 U.S.C 103 (a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Breed et al. (US 6116639A) and Le (US 5809234A).

It should be noted that the reference to Steffens, Jr. et al. is still a proper art and contains some features as recited in the claims. For example, Steffens, Jr. et al. patent disclose the weight sensor 70 (see figure 2) for determining whether the occupant or object is positioned on a particular seat, Steffens, Jr. et al, the controller unit 24 which receives a plurality of input signals from several sensors and which output the control signal to properly deploy the restraint system such as airbag system.

The new cited references to Breed et al. and Le are provided as disclosing the missing features from Steffens, Jr. et al. The details of rejection have been discussed in the previous paragraph.

For the reason discussed above, the application is now set in set in a condition for non-final rejection based on the references of Steffens, Jr. et al, Breed et al., and Le.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (703) 308-6273. The examiner can normally be reached on from 8:00AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and none for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

/tc

October 21, 2003